

Dr. Klassen Post Operative Shoulder Rehab Protocol

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GENERAL PRINCIPLES FOR POST OP SHOULDER REHAB

- This protocol gives general guidelines and is not a substitute for clinical decision making. Consult the surgical team for progressing a patient beyond the standard protocol.
- Be patient. Trust the process. Don't get ahead of biology.
- Never force PROM. Gentle progression, little or no pain.
- If motion is restored, strength will return
- Respect timelines for healing and clinical presentation for progression.
- Don't forget to address subtle impairments in motion if present no matter the phase
- If scapular hiking present against gravity (AROM) return to supine and other exercises until it improves.
 - Progress to antigravity only when gravity assist is nearly full
 - Consider gradually inclining patient up against gravity until able to move against gravity without scapular hiking (beach chair progression)
- RC strengthening: focus on higher reps, light weights and slow performance. Desired outcome 30 reps before progressing weight.
- As patients advance strengthening to heavy weights decrease the frequency of strengthening to 3-4x/week.
- MD appts: At 2, 6 and 12 weeks and as needed after that. (TSA includes follow up at 1 year and maybe at 6 months. Fractures, MCR and SCR follow up at 2, 4, 8 and 12 weeks and sometimes at 6 months)
- Sling: 1 wedge (wide at front) except 2 pads for massive RC tears and SCR. (Body habitus may preclude 2 pads). Double triangle wedge for posterior labral repairs (both wide part of wedges anterior to position in more ER).
 - Hand should be lined up with midline of body (sternum)
- Adjust frequency of visits based on patient need and meeting expectations.

EXCEPTIONS TO THE STANDARD PROTOCOL

- The following conditions follow the DELAYED PROTOCOL (**delay everything by 2 weeks**):
 - Massive RC tears (6+ anchors or open procedure), RC revisions, humerus fractures, posterior labral repairs, superior capsular reconstructions (SCR) and inferior capsular shifts, labral repairs 6+ anchors, and lower trapezius transfers
 - Sling for 6-8 weeks, 1st rehab appt at 4 weeks, delay each phase by 2 weeks
- Massive RC tears and SCR: Lifetime maximum 1 lb for isolated RC strengthening
- Standard RC repairs: Lifetime maximum 3 lbs for isolated RC strengthening
- HAGL (humeral avulsion of the GH ligament) procedure: don't force elevation and progress slowly
- TSA and rTSA: progress ER slowly (subscap repair), at 6 weeks can begin ER ROM as able and reaching behind the back and gentle IR stretching.
 - **RevTSA**: 3 lb lifetime maximum for deltoid strengthening
 - **RevTSA**: no scapular retraction until 6 weeks
- SLAP/anterior labral repairs: Wait for ER90ABD stretching until 10 weeks
- Biceps tenodesis: Active elbow flexion okay but no weight until 6 wks then 1 lb. At 12 weeks, begin strengthening
- Posterior labral repairs: Active IR at 6 weeks. At 10 weeks, IR & cross body adduction stretching okay
- Decompression: Can wean off sling at 2 weeks. Begin active Codmans and table slides immediately.
 - progress through ROM and strengthening based on tissue tolerance and clinical presentation
- Manipulations: Sling PRN. Start rehab postop day 2 if possible then daily for one week. After 1 week adjust visits as needed and progress through phases based on tissue tolerance and presentation (typically more intensive)
- Clavicle fractures:
 - ORIF follow standard protocol
 - Non surgical rehab begins at 6 weeks or unless directed by MD
- Abduction: Not a functional plane of motion so progress slowly. For massive cuff tears and SCR and anterior labral repairs, wait to progress into abduction until 8-10 weeks.

PHASE I: PROTECTION

Usually week 0 through week 5 in duration.

Protection:

Immobilizer/sling for 4 weeks (sleep also). Okay to wean out for 2 weeks after the 4 week period.

Restrictions

- ER to 0° arm at side, gradual progress in elevation/flexion, IR to mid axillary line only.
- No forced ROM, mild pain only.
- No lifting of objects.

Exercise:

- Elbow, wrist/hand/grip/scap sets begin post op day 1
- At 2 weeks, 1st post-op rehab visit begins: Active Codmans (slowly) (3-5x/day 15-20 reps), passive table slides (3-5x/day 10-15 reps) and scapular sets (revTSA no scap sets until week 6)
- PROM: elevation as tolerated, IR from loose pack to abdomen. Do not force motion.
- Table top PROM with elbow on table into elevation can begin at week 3 or 4.

Cold packs

Frequently and as indicated.

Patient Education

Sleep positions, icing, personal hygiene, postural education. See "Your Shoulder Surgery".

Expectations at end of phase I:

- Mild pain and sleep improving
- Full elbow, wrist and hand ROM
- Maintenance of personal hygiene and underarm care
- Passive elevation 90-110 little or no pain

Outpatient visits

Begin 2 weeks post-op, 1-2 visits anticipated and adjust based on need

PHASE II: INITIAL MOTION

Usually begins at the start of week 6 through end of week 9. (4 weeks)

Exercises:

Passive ROM progressing to active assistive.

- Continue with Codmans (3-5x/day up to 20 reps) and progress to active table slides some with hold times 5-10 seconds (3-5x/day 10-15 reps)
- Table top PROM with elbow on table into elevation and gently into other planes
- Scapular exercise: bent over row/extension, protraction, retraction
- AAROM: begin with flexion in supine with assist of other hand or cane
 - ER/IR/EXT wand exercises
 - beginning week 8 can begin standing wand flexion if supine flexion ~140° (avoid scapular hiking and if present return to supine and other exercises until it improves)
- Wall finger climb/active wall slides
- Supine protraction plus
- Pulleys: Begin week 8. Facing door, elevation only. At week 10 can begin rear facing.
- PROM: Elevation, IR from loose pack, ER to 30° Do not force motion, only move through available ROM
- Aquatics/pool: may be started at 6 weeks with rehab

supervision and activity consistent with phase level of rehab (Full swimming at 3 months)

- Scapular mobilization
- Walking with arm swing
- UBE: light resistance

Expectations at end of phase II:

- 120-140 degrees AA elevation (80-100% available ROM)
- little or no pain at rest or sleep
- able to walk with arm swing
- able to use arm for light activities

Activities permitted during phase:

- Writing/Keyboarding (30 minutes)
- Eating/dressing/grooming
- Lifting with elbow at side limited to 12 oz cup/can, etc.
- Driving – cannot drive if using a sling
- MD directs return to work

Anticipated outpatient frequency

1 – 3 times per week (based on clinical presentation and meeting expectations)

PHASE III: INITIAL STRENGTHENING

Usually begins at the start of week 10 through end of week 13 (4 weeks)

***Must have near normal AAROM and little/no pain to progress to Phase III**

Exercises:

Mild to no pain, compensation free

- Continue previous exercises if indicated
- AROM- progress to antigravity when supine and gravity assist near normal.
- Isometrics (submax to RC) helpful if slow return of AROM
- Theraband for shoulder extension and scapular retraction/rowing.
- Isotonic and theraband RC strengthening can begin at 12 weeks. Goal 30 reps before progressing weight.
- Wall push-ups
- UBE, elliptical, Airdyne
- Rhythmic stabilization to RC and scapular muscles
- Aquatic exercise including breaststroke (no overhead strokes)

Manual Therapy:

Gentle GH joint mobilization (Except MCR, SCR and Labral repairs)

Expectations at end of phase III:

- Critical to restore full PROM if lacking (don't miss this)
- Able to reach to shoulder level and away from body
- Nearly full AROM into elevation/flexion
- Using arm for eating and dressing activities
- Patient able to touch opposite shoulder, touch back of head, reach into the back pocket or hook a bra, tuck in shirt/blouse

Activities permitted during this phase:

- General guideline – it is safe at this point to perform functional activities below shoulder level (i.e. lift a coffee pot, half gallon milk carton)
- Light activities including light house work, reaching for light items (cups, small dishes, utensils, tools but nothing over 1 lb for overhead)
- Driving community distances

Anticipated outpatient frequency:

1 – 2 times per week

PHASE IV: COMPREHENSIVE STRENGTHENING

Usually begins the start of week 14 through end of week 17 (4 weeks)

Resume normal use of the arm except for heavier lifting and overhead lifting (1-3 lbs overhead)

Exercise

Little or no pain, compensation free. As strengthening increases adjust freq to 3-4x/week. Goal of 30 consecutive repetitions for each exercise.

- Isotonic strengthening in standing, sidelying and prone. Max of 1-3 lbs for isolated cuff exercises.
- Theraband-all planes
- Closed chain strengthening (progressive push-ups)
- All UE/LE aerobic machines and running on good surfaces
- Stretching no limits all planes
- Stretching no limits all planes if limited
- Weight machine and free weights can be progressed when adequate RC strength and function
 - Bench press (hands in closer except wider for posterior capsular repair)

- Lat pull downs hands in close and pull down in front
- Seated row avoiding excessive extension
- Avoid military press/overhead press, dips, lateral raise, deep flys(horizontal abd)

Expectations at end of phase IV:

- Unweighted to light weighted lifting overhead. (0-3 lbs)
- Weighted activities at waist level per MD
- Return to work per MD recommendations

Activities permitted during phase:

- Lifting/carrying a small child
- Light laundry
- Moderate activity level (i.e. kitchen activities, household cleaning, playing a musical instrument, fishing, riding road bike, light gardening and outdoor activities, light shop/hobby activities)

Anticipated outpatient frequency:

1 – 2 times per week.

PHASE V: RETURN TO FUNCTION

Usually begins the start of 18 weeks. Physician direction for specific activities required.

Exercise:

- Continue RC strengthening (max weight 1-3 lbs) and scapular strengthening/stab exercises 3-4x/week emphasis on high reps and no compensations
- Stretching all planes if motion limited

Activities of daily living:

- Heavy house and yard work, snow shoveling, changing tire, lifting/carrying children and lifting car seats
- Avoid pull start motors(ok at 6 months)
- Progress work conditioning (lift, push/pull)

Return to sport and recreation activities:

Progress from slow speed, low intensity activities to high speed, high intensity, concentric/eccentric work. Begin with below shoulder activities and progress to above shoulder.

Examples would be starting with tennis activities by working against a backboard first, chipping with golf, or puck handling with hockey.

- At 5 months, the following are usually appropriate: in line skating, canoeing, biking, golfing, swimming
- At 6 months, the following are usually appropriate: throwing sports, racquet sports, water skiing, collision sports, downhill/cross country skiing

Return to work and manual labor tasks:

In general gradually build up tolerance particularly with overhead lifting and sustained overhead work

- At five months: mowing lawn, raking, 10 lbs overhead lifting, 50 lb floor to waist lifting
- At six months: shoveling, hammering, overhead painting

Outpatient frequency:

Therapist discretion to meet functional/lifestyle goals (work, recreation, sports)

ANTICIPATED GOALS AND OUTCOMES

- Pain level is reduced or abolished.
- Ability to perform physical tasks related to self-care, home management, community and work (job, school, play) integration or reintegration and leisure activities is increased.
- Physical function and health status are improved.
- Tolerance to positions or activity is increased.
- Risk of recurrence of condition and secondary impairments reduced.
- Joint and soft tissue health is optimized and mobility improved.
- Client is independent in a program of self-management including injury prevention and exercise.
 - Client understands that long term isolated RC and scapular exercise is important for long term success and positive outcomes (2-3x/week for RC and scapular exercise for his/her lifetime)